

Full Length Research Paper

Circumcision mishaps: Sequelae from the hands of the untrained personnels

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Accepted 07 October, 2013

Male circumcision is one of the oldest surgical operations documented on earth. It is performed both for religious and cultural reasons. It is being carried out by both trained and untrained persons leading to several complications. The psycho-social effects are overwhelming to both the victims and their relations. Reports of adult cases are very rare because circumcision is commonly carried out in neonates. The article attends to illustrate that untold complications from circumcision by untrained personnel could occur and present in adulthood or uncommon age groups. A series of three case, two adults and one infant, were reviewed for rare complications of amputation which were managed in Bayelsa State. These circumcision cases illustrated that some of the long term complications arisen from circumcision by untrained personnel. Hemorrhage, infections, penile necrosis, glans amputation, and buried penis were the complications reported in the literature. To avoid these complications, trained personnel must carry out the Circumcision.

Key words: Circumcision, mishaps, untrained personnel, penile necrosis, buried penis.

INTRODUCTION

Circumcision is one of the oldest surgical procedures with the highest complication rate (Dunsmuir et al., 1999; Wilkinson, 1997; Duncan et al., 2004; Manji, 2000). It still remains the most common surgical procedure, performed by both trado-medical and orthodox health care practitioners 1. In the sub-Saharan region, minor complications such as redundant prepuce, penile scars and glandulo-penile adhesion are accepted as normal because they do not interfere with sexual performance (Osifo, 2009) and therefore rarely seek medical attention. Dunsmuir et al. (1999), (Wilkinson 1997). On the other hand, glandular amputation, urethrocutaneous fistula, transmission of infections and uncontrolled hemorrhage are unacceptable complications of circumcision (Ben et al., 2005; Mogotlane et al., 2004; Yegane et al., 2006). In Nigeria circumcisions are routinely carried out in the neonates except on health grounds. Techniques still in use are the age-old dorsal slit and plastic bell methods. Religious and cultural rites have always been the reasons

for circumcision (Dunsmuir et al., Wilkinson 1997; Duncan et al., 2004).

In African culture, it is taken as taboo when a male is not circumcised (Dunsmuir et al., 1999; Manji 2000) and therefore it is accepted both by literates and illiterates.

Many literatures Crawford (2002). Sherman et al. (1996), Linus (2006), Drain et al. (2004), reported complications following circumcision. These complications fuel the no circumcision policy practiced in most developed countries (Ben et al., 2005; Mogotlane et al., 2004; Yegane et al., 2006; Crawford 2002; Sherman et al., 1996). Although circumcision is a common phenomenon in South-south Nigeria, no report have been published yet from this region of Nigeria.

This report highlights a few of the mishaps that may arise from circumcision carried by unskilled personnel, their management and outcome.

MATERIALS AND METHOD AND CASE SERIES

Case 1: Buried penis

The first in this report series was a 6 months old child in

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stable clinical condition. He had been circumcised by a traditional birth attendant. His traumatic post circumcision period which was complicated by hemorrhage, infection, discharging of a sero-sanguinous fluid as well as prolonged wound healing. After 3 months, mother noticed the absence of the shaft; however he had no history of urinary retention. He had intervention from both spiritualist and traditionalist for his wound before presentation.

On examination, he was a 6 months old male with well developed scrotum figure 1, absence of shaft and glans penis, a small urethral meatus figure 2, cicatrized tissue, a small shaft felt on deep palpation. He had release of his buried penis from the cicatrized tissue and he was followed-up figure 3.

Case 2: Amputation of part glans of penis.

The Second case in this series was a 19 year old man who was circumcised by a traditional birth attendant during infancy. He gave a history of excessive bleeding during the post circumcision period. He however, grew into adult hood with bifid urine stream, intermittency, difficulty in passing urine which progressed to acute urinary retention. He is not a known diabetic.

On examination, he was in painful distress with a distended urinary bladder. The glans of penis was amputated and the urethral meatus was covered by redundant fibrous tissue. He had surgical release of the fibrous tissue by resection and was followed immediately with catheterization figure 4 of the urethral. He started passing urine figure 5. The wound healed and he was finally discharged for follow-up.

Case 3: Penile glandular necrosis

He was a 38 year old man who resorted for circumcision because of his new found religion (Muslim who converted to Christian). His circumcision was carried out by a Nurse under local anesthesia using lignocaine with adrenaline. Figure 6: Sloughed off Necrotic penile gland tissue Figure 7: Catheterized Urethra

A week later, he noticed that the glans had sloughed-off with an associated acute urinary retention. He presented with distended urinary bladder and was in painful distress. The penile glans was dressed with plaster and pus oozing from the urethra. The patient was catheterized and treated with antibiotics and regular wound dressings, and was then discharged home in stable clinical condition for follow up.

DISCUSSION

Circumcision is a common surgical procedure carried out to excise the prepuce of the penis and expose the glans.

The procedure is commonly carried out in the neonate and rarely during adulthood.

The rate of Circumcision from Ibadan in Nigeria was 87% 'reported by Linus et al'. he reported a complication rate of 20.2% (Linus, 2006) in children.

In sub-Saharan Africa Overall rate of Circumcision was 62% [Drain 2004]. Circumcision rate varies markedly between tribes. Reported rates amongst males over 15 years of age is 8% in Swaziland, 10% in Zimbabwe, 11% in Botswana, 12% in Malawi, 13% in Zambia, 14% in Uganda, 21% in Namibia, 25% in Uganda, 35% in South Africa, and 70% in Tanzania, 83% in Kenya, 85% in Ghana, 90% in Nigeria, 90% in Angola, 90% in the Democratic Republic of Congo, and 92% in Ethiopia (De Bruyn, 2010).

In the US, 1.25 million Circumcisions of newborns are performed yearly. Reported infection rate was 0.5% and only 4 percent had complications that required treatment (Schwartz et al., 1990).

Some referral centers had reported that around 24 percent of pediatric urological workload comes from circumcision mishaps (Osifo et al., 2009; Linus, 2006; Ahmed et al., 2008; Ponsky, 2000; Bode et al., 2007).

Another hospital, over a 5 year period, reported that neonatal circumcision mishap accounted for 4.7% of all the surgeries carried out in children, and represented 7.4% of the total volume of cases seen in Paediatric Urology clinic.

According to these reports, Circumcision mishap rates vary from region to region and in different countries. Variations are rooted upon personal, cultural, religion beliefs as well as prevailing health policies in the affected geographical location. Most studies were carried out in children because most complication presented in childhood, contrary to our second and third cases which presented in adulthood.

Most complications are usually addressed before adulthood and literature of mishaps from adulthood circumcision are scarce. Early complication reported from the index cases include hemorrhage[case 1&2] and infection[case 1,2&3] while the late complications were distorted urinary stream[case 2], acute urinary retention [case 2&3], lower urinary tract obstruction, buried penis[case1], penile glandular necrosis and amputation [case3].

The case series and aforementioned studies reflected the fact majority of those performing surgical procedure on the penis of minors take no interest in following up the outcome.

A Study from Northern Nigeria had reported complications such as urethrocutaneous fistula, redundant prepuce, hemorrhage, glandulo-penile adhesion, implantation cyst, proximal migration of plastibell ring, penile tissue avulsions and peno-pubic adhesion (Osifo et al., 2009).

The time of presentation is usually influenced by the type of mishap, parents and circumcisionist' awareness of



Figure 1. Buried penis in an infant. **Figure2.** Demostarted meatus **Figure 3.** released penis



Figure 4. Urethral meatus catheterized after fibrous tissue resection.



Figure 5. Urine retention relieved after Catheterization.



Figure 6. Sloughed off Necrotic penile gland tissue.



Figure 7. Catetherized Urethra.

the grave dangers associated with these complications. Hence children with hemorrhage, present earlier than

those with redundant prepuce; and those circumcised by doctors presents earlier than those circumcised by persons

who were not doctors, as reported by Okeke and Ahmed (Linus, 2006; Ahmed et al., 2008).

Hemorrhage as reported from index cases could have been deleterious. Patel 1966 reported 35% risk of occurrence in circumcision, ranging from oozing to profuse bleeding. He also brought to bear that as little as two tablespoon of blood (30 mls) might necessitate for blood transfusion in neonates. Another study (Jose et al. 2010) reported 16.17% and 5.26% for dissection and Plastibell respectively; therefore there is variations in the risk of hemorrhage depending in the method employed.

Infection is one of those complications that may follow circumcision. Trado-medical circumcisionist [case2] contributes significantly to these mishaps and they compound the problem with an unsterile instruments and unclean environment as well as applying of native concoctions to the wound figure 4-7. These situations are route for transmitting infections such as, HIV (Linus, 2006) hepatitis5 and tetanus 5. Even among health personnel if not trained adequately. Wound infections were obvious in the indexed cases [case 2&3].

Intermittency, bifid urinary stream are symptoms of lower urinary obstruction from scar tissue that developed following chronic infections and inflammations. The symptoms may accentuate to acute urinary retention resulting from urethral or meatal stricture as seen in the index cases [case2&3]. Literature reports are scarce for these symptoms as complications to Circumcision.

Buried penis was described in the early 20th century as a penis of normal size that lacks an appropriate sheath of skin and is located beneath the integument of the abdomen, thigh, or scrotum. This condition is more common in children, usually presenting in neonates or obese prepubertal boys; however, it can also be seen in adults and has been observed in both circumcised and uncircumcised individuals (Maizels et al., 1986). Prolonged wound healing and scarring were the catalyst for features of the first case figure 1&2. Reported rate of buried penis among circumcision mishaps was 1.5% (Linus, 2006).

Penile or glans necrosis and amputation are other mishaps observed in the case series [case2&3].. The causal factors behind these were lack or limited knowledge about the anatomical structure of the penis, as well as deficiency in the protocol of Circumcision. Lignocaine with adrenaline was used in one of the case, that lead to inadequate perfusion of surgical wound, precipitating necrosis and sloughing of dead tissue with superimposed infections. Lignocaine with adrenaline is a known contraindication for anesthesia in the penis as well as organs with end arteries, hence, should not be used for circumcision.

Several risk factors interplay contributing to these untold stories. The cases and other reports Mogotlane et al. (2004) and Linus (2006) resonate the fact that some of the complications from circumcision present late .The level of training, place of circumcision and post- circumcision care are important factors in determining the type of

injury, mode of presentation, challenges of treatment and final outcome (Linus, 2006). Consequently, the following reports (Ben et al. 2005; Mogotlane et al., 2004; Linus, 2006; Ahmed et al., 2008; Ponsky, 2000; Bode et al., 2007; Yazici et al., 2003; Peterson et al., 2001; Manji, 2000; Palit et al., 2007) have proven that poor mastery of the methods of circumcision results from poor training.

All of the complications are preventable. A sterile environment or theatre, sterilized and appropriate surgical instruments, antibiotics prophylactic and analgesics in the hands of trained personnel are necessities to successful circumcision there-by reducing circumcision mishaps. Other modalities such as urinary diversion, special dressing, microsurgical instruments, fine sutures and expertise in fragile tissue handling are very important in preventing complications such as fistula formation, scarred penis and inadequate penile sizes that could arise following surgical corrections of mishap. The surgical method employed during circumcision might reduce the risk for complications. A control-trial between Plastibell and dissection by Jose et al, showed that complication rates can be reduced significantly using the Plastibell (Jose et al., 2010). A highly sophisticated and well equipped centre would contribute in preventing these danger9. A dire need for adequate training and supervision of circumcisionist in our rural areas is advised (Chandran L et al., 2002 and Brisson et al., 2002).

CONCLUSION

Mishaps from circumcision in children are becoming a common phenomenon in our environment but still rare in adults. They can be prevented through awareness campaign, adequate training and supervision of the practice of Circumcision.

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